

Applicant: T. Shiromoto, et al.  
U.S.S.N.: 10/600,974  
Response to Office Action  
Page 9 of 17

**REMARKS**

Applicants appreciate the Examiner's thorough examination of the subject application and request reconsideration of the subject application based on the foregoing amendments and the following remarks.

Claims 1-8 are pending in the subject application. The non-elected claims, claims 9-18 were canceled and are being prosecuted in the parent application.

Claims 1-8 stand rejected under 35 U.S.C. §102, 35 U.S.C. §103, and/ or 35 U.S.C. §112, second paragraph.

Claim 1 was amended so as to more clearly and distinctly claim Applicants' invention.

Claim 5 was amended to reflect changes in the language of the base claim.

Claim 8 was amended to only address the Examiner's non-art based rejections and so that the method is specific to a metal base material.

Claims 19-21 and 23-28 were added to more distinctly claim embodiments/ aspects of the present invention. Claim 22 was added to set forth the method claim of claim 8 but written so as to more specifically apply to a resin base material as had been set forth in the language of originally filed claim 8.

The amendments to the claims are supported by the originally filed disclosure.

**35 U.S.C. §112, SECOND PARAGRAPH REJECTIONS**

Claim 8 stands rejected under 35 U.S.C. §112 on the grounds that there are antecedent basis, indefiniteness and/or vagueness concerns with the identified claims as more particularly

Applicant: T. Shiromoto, et al.  
U.S.S.N.: 10/600,974  
Response to Office Action  
Page 10 of 17

described on page 2 of the above-referenced Office Action.

As provided above, Applicants amended claim 12 to address the non-art concerns specifically identified by the Examiner. Thus, Applicants believe that the areas of rejection have been identified and addressed in the foregoing amendment.

Accordingly, it is respectfully submitted that claim 8 thus satisfies the requirements of 35 U.S.C. §112 and, as such, is in a condition for allowance.

#### 35 U.S.C. §102 REJECTIONS

The Examiner rejected claims 1, 2 and 4 under 35 U.S.C. §102(b) as being anticipated by Shikama et al. [USP 4,987,566; “Shikama”] for the reasons provided on page 3 of the above-referenced Office Action. Applicants respectfully traverse as discussed below. Because claims were amended in the instant amendment, the following discussion refers to the language of the amended claims. However, only those amended features specifically relied upon to distinguish the claimed invention from the cited prior art shall be considered as being made to overcome the cited reference.

Applicants claim, claim 1, a semiconductor laser device employed in an optical pickup of a 3-beam method that divides one laser beam into three beams by an optical system, said three beams being a 0th-order beam and ± first order beams, and directs the three beams towards an optical recording medium to detect information recorded on said recording medium and detecting tracking error information during said detection by the 0th-order beam and ± first order beams reflected from said recording medium. The optical system includes a header portion, a laser chip

Applicant: T. Shiomoto, et al.  
U.S.S.N.: 10/600,974  
Response to Office Action  
Page 11 of 17

and a reflector. The header portion includes a mount surface and a leading edge plane that crosses a plane defined by the mount surface. The laser chip generates the said one laser beam and the laser chip is mounted to the mount surface of said header portion.

The reflector is attached on a side beam incident region of the leading end plane of said header portion and is configured and arranged so as to reflect said side beam outside said optical system. The said side beam is one of two side beams generated by said reflected ± first order beam and fed back through said optical system returning towards said header portion to strike said side beam incident region. Also, the reflector is constituted of a material having different properties than that of material constituting the header portion.

In contrast, to the present invention Shikama discloses a semi-conductor device in which (1) the entire leading edge is coated with an anti-reflection layer 400 or (2) the front end face 300 of the mount 4 is shaped such as that shown in figure 2 of Shikama so to be capable of reflecting light incident thereon. The anti-reflective layer 400 is described in a few places in Shikama as being formed by painting the front end face of the mount with a black ink for writing use.

Thus, Shikama cannot disclose, as is claimed by Applicants, a reflector that is *attached* on a side beam incident region of the leading end plane of said header portion and being configured and arranged so as to reflect said side beam outside said optical system. It also is clear that Shikama also cannot disclose that the reflector is constituted of a material having different properties than that of material that make up the header portion.

In sum, while Shikama discloses techniques and mechanisms for dealing with the laser light being reflected back to the header portion, these techniques and mechanisms are different

Applicant: T. Shiromoto, et al.  
U.S.S.N.: 10/600,974  
Response to Office Action  
Page 12 of 17

from disclosed and taught in the subject application. It thus also follows that these features disclosed in Shikama cannot correspond to the reflector of the subject application and as set forth in claim 1.

As to claims 2 and 4, each of these claims depends from claim 1. Thus, it is respectfully submitted that each of claims 2 and 4 are considered to be allowable at least because of their dependency from a base claim that is considered to be allowable.

As to claim 2, Applicants would note that the basis offered for the rejection, namely the thickness of the laser diode chip, does not relate to the invention as set forth in claim 2. The dimensions in claim 2 are not a range of dimension, which it appears, is what the rejection is being based upon. Rather, the dimensions being claimed in claim 2 correspond to the distance between two boundaries of the reflecting plane with respect to the light emitting point. As such, for this further reason claim 2 is considered allowable.

As provided in MPEP-2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Or stated another way, “The identical invention must be shown in as complete detail as is contained in the ... claims. *Richardson v Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ 2d. 1913, 1920 (Fed. Cir. 1989). Although identify of terminology is not required, the elements must be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990). It is clear from the foregoing remarks that the above identified claims are not anticipated by the cited reference.

In deciding the issue of anticipation, the trier of fact must identify the elements of the

Applicant: T. Shiomoto, et al.  
U.S.S.N.: 10/600,974  
Response to Office Action  
Page 13 of 17

claims, determine their meaning in light of the specification and prosecution history, and identify *corresponding elements* disclosed in the allegedly anticipating reference (emphasis added, citations in support omitted). *Lindemann Maschinenfabrik GMBM v. American Hoist and Derrick Company et al.*, 730 F. 2d 1452, 221 USPQ 481,485 (Fed. Cir. 1984). In concluding that the '770 Patent did not anticipate the claims, the Federal Circuit in *Lindemann Maschinenfabrik GMBM v. American Hoist and Derrick Company et al.*, at 221 USPQ 485-486, further provides that:

The '770 patent discloses an entirely different device,  
composed of parts distinct from those of the claimed invention, and  
operating in a different way to process different materials differently.

Thus, there is no possible question of anticipation by equivalents.

Citations omitted.

It is clear from the foregoing remarks, that the allegedly corresponding elements disclosed in Shikama do not in fact correspond to the elements of the claimed invention. It also is clear that the apparatus described in Shikama functions in a different manner from that of the claimed invention. As also indicated above, the method disclosed and taught in Shikama for suppressing the effects of the light being reflected towards the header or stem of a semiconductor laser device is completely different from that claimed and taught by Applicants. Thus, there can be no disclosure or teaching in Shikama of Applicants' invention.

It is respectfully submitted that for the foregoing reasons, claims 1, 2 and 4 are patentable over the cited reference and thus satisfy the requirements of 35 U.S.C. §102(b). As such, these claims, including the claims dependent therefrom are allowable.

35 U.S.C. §103 REJECTIONS

Claims 3 and 5-8 stand rejected under 35 U.S.C. §103 as being unpatentable over Shikama et al. [USP 4,987,566; “Shikama”] for the reasons provided on pages 4-5 of the above-referenced Office Action. Applicants respectfully traverse as discussed below. Because claims were amended in the instant amendment, the following discussion refers to the language of the amended claims. However, only those amended features specifically relied upon to distinguish the claimed invention from the cited prior art shall be considered as being made to overcome the cited reference.

Each of claims 3 and 5-7 depends respectfully from claim 1. As indicated in the discussion above regarding the rejection under §102, Shikama does not disclose the semiconductor laser device of claim 1. It also is respectfully submitted that Shikama does not disclose, teach nor suggest the semiconductor laser device of claim 1. Further, it is respectfully submitted that Shikama does not teach, suggest nor offer any motivation for modifying the semiconductor laser device disclosed in Shikama so as to yield the semiconductor laser device of the present invention and as embodied in claim 1. As such, it is respectfully submitted that each of claims 3 and 5-7 are considered to be allowable at least because of their dependency from a base claim that is considered to be allowable.

As to claim 8, this claims a method of fabricating a semiconductor laser devices including the steps of attaching a base material at the side beam incident region at the leading edge region of a header portion, which base material is formed of a metal softer than the metal forming the

Applicant: T. Shiromoto, et al.  
U.S.S.N.: 10/600,974  
Response to Office Action  
Page 15 of 17

header portion and shaping the attached base material into a reflector of a predetermined configuration to reflect the side beam from the optical system.

In contrast, to the present invention Shikama discloses (1) coating the entire leading edge with an anti-reflection layer 400 or (2) shaping the front end face 300 of the mount 4. The anti-reflective layer is described in a few places in Shikama as being formed by painting the front end face 300 of the mount 4 with a black ink for writing use.

As to the shaping of the front end face of the mount, Applicants would direct the Examiner to the discussion in the subject application (e.g., see pages 4-5 thereof) of the problems associated with trying to form an inclination plane in a header portion as is being disclosed in Shikama. In any event, it is clear that Shikama cannot disclose attaching a base material to the header and then forming the reflector by shaping the attached base material. As such, Shikama cannot disclose the method of claim 8. Also, Shikama cannot be used as a basis to assert that Shikama teaches or suggests such a method nor teach, suggest or offer motivation for modifying the method disclosed therein so as to yield the method claimed by Applicants.

As provided in MPEP 2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F. 2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F. 2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). As provided above, the references cited, alone or in combination, include no such teaching, suggestion or motivation.

Applicant: T. Shiromoto, et al.  
U.S.S.N.: 10/600,974  
Response to Office Action  
Page 16 of 17

Furthermore, and as provided in MPEP 2143.02, a prior art reference can be combined or modified to reject claims as obvious as long as there is a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 19866). Additionally, it also has been held that if the proposed modification or combination would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. Further, and as provided in MPEP-2143, the teaching or suggestion to make the claimed combination and the reasonable suggestion of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). As can be seen from the forgoing discussion regarding Shikama, there is no reasonable expectation of success provided in Shikama.

It is respectfully submitted that for the foregoing reasons, claims 3 and 5-8 are patentable over the cited reference(s) and thus, satisfy the requirements of 35 U.S.C. §103. As such, these claims, including the claims dependent therefrom are allowable.

#### CLAIMS 19-28

As indicated above, claims 19-21 and 23-28 were added to more distinctly claim embodiments/ aspects of the present invention. Claim 22 was added as indicated above to set forth the method claim of claim 8 but written so as to more specifically apply to the resin feature of claim 8. These claims are clearly supported by the originally filed disclosure, including the originally filed claims. It also is respectfully submitted that these added claims are patentable over the cited prior art on which the above-described rejection(s) are based.

Applicant: T. Shiomoto, et al.  
U.S.S.N.: 10/600,974  
Response to Office Action  
Page 17 of 17

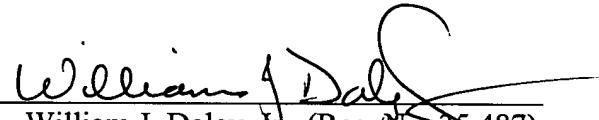
It is respectfully submitted that the subject application is in a condition for allowance.

Early and favorable action is requested.

Although claims were added to the subject application, Applicants believe(s) that additional fees are not required. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, the Commissioner is hereby authorized and requested to charge Deposit Account No. **04-1105**.

Respectfully submitted,  
Edwards & Angell, LLP

Date: October 22, 2004

By:   
William J. Daley, Jr., (Reg. No. 55,487)  
Edwards & Angell, LLP  
P.O. Box 55874  
Boston, MA 02205  
(617) 439- 4444

**Customer No. 21,874**

Bos2\_458776.2